#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-013588 Address: 333 Burma Road **Date Inspected:** 20-Mar-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG Segment** 

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

**OBG Trial Assembly Yard** 

Segment 7BW/7CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW7-008. The welder is identified as #066326 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

Segment 7BE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP655-001-013 to 018. The welder is identified as #067572 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1.

Segment 7CE

## WELDING INSPECTION REPORT

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP656-001-007 to 012. The welder is identified as #067572 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1.

Segment 7AE/7BE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as EP089-013, 014. The welder is identified as #066413 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing (UT) on repairs of the Side Plate CJP splice, cross beam side at Y location 5770mm and 7480mm.

Segment 7AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA033-006. The welder is identified as #037932 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed ABF personnel performing Magnetic Particle Testing (MT) on the Side Plate WT stiffener hold back fillet welds after grinding, bike path side at the 6/7 field splice location.

This QA Inspector observed ABF personnel performing Magnetic Particle Testing (MT) on the Deck Plate at locations of removed fit up plates along the 6/7 field splice location.

Segment 7BE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA036-006. The welder is identified as #037932 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Segment 7AW

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing (UT) on the Edge Plate to Side Plate CJP splice hold back weld, cross beam side at 6CW/7AW field splice.

This QA Inspector observed ABF personnel performing Magnetic Particle Testing (MT) on the Deck Plate at locations of removed fit up plates along the 6/7 field splice location.

Segment 6CW

# WELDING INSPECTION REPORT

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This QA Inspector observed grit blasting in progress on the exterior of the segment.

ZPMC Quality Control (QC) Inspector is identified as Wang Li Yang. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer